## DETAILED ACTION

### *Response to Arguments*

1.      Applicant's arguments with respect to claims 1-3, 5 and 7-40 have been

considered but are moot in view of the new ground(s) of rejection.

### *Specification*

2.      The disclosure is objected to because of the following informalities: The applicant

discloses "… an STT …" which should be change to "… a STT …" in paragraphs [0002],

[0005], [0006], [00012] (three times), [0013], [0016], [0074], [0081] (two times), [0092],

[0093] and [0098].

        Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

3.      The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.      **Claims 10, 12 – 14, 16, 18 – 22, 30, 32, 33, 35, 37 and 38** are rejected under 35

U.S.C. 102(b) as being anticipated by Frost et al. (Pub No US 2002/0039483)

Hereinafter referenced as Frost.

Regarding **claim 10**, Frost discloses a method comprising the steps of: receiving

a video stream (Paragraph [0004]);

compressing the video stream in a manner that varies based on the availability of

computing resources (Paragraphs [0004] [0005]; content is compressed based on the

storage space available when the content is being processed);

and recompressing the compressed video stream in a manner that is responsive

to the availability of the computing resources (Paragraph [0008] [0016] [0017]; once the

storage space is reaching it capacity content may be automatically re-compressed in

order to free up more storage space).

Regarding **claim 12**, Frost discloses the method of claim 10; moreover, Frost

discloses that the computing resources comprise at least one of an instruction execution

resource, bus bandwidth, memory capacity, storage capacity, and access to storage

capacity (Paragraphs [0004] [0005]; content is compressed based on the storage space

available when the content is being processed).

Regarding **claim 13**, Frost discloses the method of claim 10; moreover, Frost

discloses that the method is implemented by a television set-top terminal (STT)

(Paragraph [0006] and [0007]; broadcast data receiver).

Regarding **claim 14**, Frost discloses a method comprising the steps of: receiving a video stream (Paragraph [0004]);

compressing the video stream in a manner that varies based on one or more characteristics of the received video stream (Paragraphs [0004] [0005]; content is compressed based on the storage space available when the content is being processed);

and recompressing the compressed video stream in a manner that is responsive to one or more characteristics of the compressed video stream (Paragraph [0008] [0016] [0017]; once the storage space is reaching it capacity content may be automatically re-compressed in order to free up more storage space).

Regarding **claim 16**, Frost discloses the method of claim 14; moreover, Frost discloses that the compressed video stream is recompressed in a manner that is responsive to at least one of a format of the compressed video stream, a bit rate of the compressed video stream, a picture size corresponding to the compressed video stream, a frame rate of the compressed video stream, a color characteristics of the compressed video stream, a complexity of the compressed video stream, or frame types that are included in the compressed video stream (Paragraph [0010]; recompression according to the bit rate).

Regarding **claim 18**, Frost discloses the method of claim 14; moreover, Frost

discloses that the method is implemented by a television set-top terminal (STT)

(Paragraph [0006] and [0007]; broadcast data receiver).

Regarding **claim 19**, Frost discloses a method comprising the steps of:

monitoring consumption of computing resources over an extended time period

(Paragraphs [0008] [0013] [0016] [0017]; monitoring the storage space available);

receiving a video stream; compressing the video stream (Paragraph [0004]; the

received content is compressed);

and recompressing the compressed video stream at a future time that is

responsive to availability of computing resources at the future time (Paragraphs [0008]

and [0010]).

Regarding **claims 20 and 22,** Frost and Boston disclose all the limitations of

claims 20 and 22; therefore, claims 20 and 22 are rejected for the same reasons as in

claim 12 and 18, respectively.

Regarding **claim 21**, Frost discloses the method of claim 19; moreover, Frost

discloses the step of monitoring consumption of computing resources comprises

monitoring user input (Paragraph [0016]).

Regarding **claim 30**, Frost discloses a set-top terminal (STT) comprising: an encoder configured to compress the video stream in a manner that is responsive to the availability of computing resources (Paragraphs [0004] [0005]; content is compressed based on the storage space available when the content is being processed);

and an encoder configured to recompress the compressed video stream in a manner that is responsive to the availability of computing resources (Paragraph [0008] [0016] [0017]; once the storage space is reaching it capacity content may be automatically re-compressed in order to free up more storage space),

the encoders residing in the STT (Paragraph [0006] and [0007]).

Regarding **claim 32,** Frost and Boston disclose all the limitations of claim 32; therefore, claim 32 is rejected for the same reasons as in claim 12.

Regarding **claim 33**, Frost discloses a set-top terminal (STT) comprising: an encoder configured to compress a video stream in a manner that is responsive to one or more characteristics of the received video stream (Paragraphs [0004] [0005]; content is compressed based on the storage space available when the content is being processed);

and an encoder configured to recompress the compressed video stream in a manner that is responsive to one or more characteristics of the compressed video

stream, (Paragraph [0008] [0016] [0017]; once the storage space is reaching it capacity

content may be automatically re-compressed in order to free up more storage space),

the encoders residing in the STT (Paragraph [0006] and [0007]).


Regarding **claim 35,** Frost and Boston disclose all the limitations of claim 35;

therefore, claim 35 is rejected for the same reasons as in claim 16.


Regarding **claim 37**, Frost discloses a set-top terminal (STT) comprising: a

module configured to monitor consumption of computing resources over an extended

time period (Paragraphs [0008] [0013] [0016] [0017]; monitoring the storage space

available);

an encoder configured to compress a video stream (Paragraph [0004]; the

received content is compressed);

and an encoder configured to recompress the compressed video stream at a

future time that is responsive to availability of computing resources at the future time

(Paragraphs [0008] and [0010]).


Regarding **claim 38,** Frost and Boston disclose all the limitations of claim 38;

therefore, claim 38 is rejected for the same reasons as in claim 12.

## *Claim Rejections - 35 USC § 103*

5.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.      **Claims 1 – 3, 5, 7 – 9, 11, 15, 17, 23, 24, 26, 28, 29, 31, 34, 36 and 39** are

rejected under 35 U.S.C. 103(a) as being unpatentable over Frost in view of Boston et

al. (Pub No US 2007/0286581). Hereinafter, referenced as Frost and Boston,

respectively.

Regarding **claim 1**, Frost discloses method comprising the steps of: encoding a

video stream in a first compressed format; storing the video stream encoded in the first

compressed format in a storage device (Paragraph [0004]; data is compressed or

encoded and then the compressed data is stored in memory);

retrieving the video stream encoded in the first compressed format from the

storage device (Paragraph [0008]; the compressed data is selected);

encoding the decoded video stream in a second compressed format, wherein the

first compressed format is a format of lesser computational complexity than the second

compressed format (Paragraphs [0008] and [0010]; the previously compressed content

is re-compressed into a lower bit rate in order to free up more storage space);

and storing the video stream encoded in the second compressed format in the

storage device (Paragraphs [0008] and [0010]).

However, it is noted that Frost fails to explicitly disclose decoding the video

stream encoded in the first compressed format.

Nevertheless, in a similar field of endeavor Boston discloses decoding the video

stream encoded in the first compressed format (Paragraphs [0066] [0067] and [0281] -

[0284] also exhibited on fig 37; codec 176).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Frost by specifically providing the elements

mentioned above, as taught by Boston, for the purpose of including components that

are necessary in order to compress video files from one compression level to another.


Regarding **claim 2**, Frost and Boston disclose the method of claim 1; moreover,

Frost discloses that the method is implemented by a television set-top terminal

(Paragraph [0006] and [0007]).


Regarding **claim 3**, Frost and Boston disclose the method of claim 1; moreover,

Frost discloses that the second compressed format enables a higher compression rate

than the first compressed format (Paragraphs [0008] [0010]).

Regarding **claim 5**, Frost discloses a method comprising the steps of: encoding a

video stream such that the video stream has a first bit-rate; storing the video stream

having the first bit-rate in a storage device (Paragraph [0004]; data is compressed or

encoded and then the compressed data is stored in memory);

retrieving the video stream having the first bit-rate from the storage device

(Paragraph [0008]; the compressed data is selected);

encoding the decoded video stream such that the decoded video stream has a

second bit-rate that is lower than the first bit-rate (Paragraphs [0008] and [0010]; the

previously compressed content is re-compressed into a lower bit rate in order to free up

more storage space);

and storing the video stream having the second bit-rate in the storage device

(Paragraphs [0008] and [0010]),

wherein the method is implemented entirely by a television set-top terminal

(Paragraph [0006] and [0007]).

However, it is noted that Frost fails to explicitly disclose decoding the video

stream having the first bit-rate.

Nevertheless, in a similar field of endeavor Boston discloses decoding the video

stream having the first bit-rate (Paragraphs [0066] [0067] and [0281] - [0284] also

exhibited on fig 37; codec 176).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Frost by specifically providing the elements

mentioned above, as taught by Boston, for the purpose of including components that are necessary in order to compress video files from one compression level to another.

Regarding **claim 7**, Frost and Boston disclose the method of claim 5; moreover, Frost discloses that the video stream having the first bit-rate is in a format that requires higher computational complexity (Paragraphs [0008] and [0010]; initially the content is compressed at a higher bit rate which requires more computational power).

Regarding **claim 8**, Frost and Boston disclose the method of claim 5; moreover, Frost discloses converting a video stream having the first bit-rate into a video stream having the second bit-rate (Paragraphs [0008] and [0010]).

However, it is noted that Frost fails to explicitly disclose that the video stream having the first bit-rate and the video stream having the second bit-rate are in an MPEG-2 format.

Nevertheless, in a similar field of endeavor Boston discloses that the video stream having the first bit-rate and the video stream having the second bit-rate are in an MPEG-2 format (Paragraphs [0282] [0283] also exhibited on fig 37).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Boston, for the purpose of including components that are necessary in order to compress video files from one compression level to another, optimizing the storage space in order to store more content.

Regarding **claim 9**, Frost and Boston disclose the method of claim 5; moreover,

Frost discloses converting a video stream having the first bit-rate into a video stream

having the second bit-rate (Paragraphs [0008] and [0010]).

However, it is noted that Frost fails to explicitly disclose that the video stream

having the first bit-rate and the video stream having the second bit-rate are in an H.264

format.

Nevertheless, in a similar field of endeavor Boston discloses that the video

stream having the first bit-rate and the video stream having the second bit-rate are in an

H.264 format (Paragraphs [0282] [0283] also exhibited on fig 37).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Frost by specifically providing the elements

mentioned above, as taught by Boston, for the purpose of including components that

are necessary in order to compress video files from one compression level to another,

optimizing the storage space in order to store more content.


Regarding **claim 11**, Frost discloses the method of claim 10; moreover, Frost

discloses the step of recompressing the compressed video stream comprises: encoding

the decoded video stream (Paragraphs [0008] and [0010]; the previously compressed

content is re-compressed into a lower bit rate in order to free up more storage space).

However, it is noted that Frost fails to explicitly disclose decoding the

compressed video stream. Nevertheless, in a similar field of endeavor Boston discloses

decoding the compressed video stream (Paragraphs [0066] [0067] and [0281] - [0284] also exhibited on fig 37; codec 176).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Boston, for the purpose of including components that are necessary in order to compress video files from one compression level to another.


Regarding **claim 15**, Frost discloses the method of claim 14; However, it is noted that Frost fails to explicitly disclose that the received video stream is compressed in a manner that is responsive to at least one of a format of the received video stream, a bit rate of the received video stream, a picture size corresponding to the received video stream, a frame rate of the received video stream, a color characteristics of the received video stream, a complexity of the received video stream, or frame types that are included in the received video stream.

Nevertheless, in a similar field of endeavor Boston discloses that the received video stream is compressed in a manner that is responsive to at least one of a format of the received video stream, a bit rate of the received video stream, a picture size corresponding to the received video stream, a frame rate of the received video stream, a color characteristics of the received video stream, a complexity of the received video stream, or frame types that are included in the received video stream (Paragraph [0282] also exhibited on fig 37; original video parameters 3704).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Boston, for the purpose of including components that are necessary in order to compress video files from one compression level to another, optimizing the storage space in order to store more content.

Regarding **claim 17,** Frost and Boston disclose all the limitations of claim 17; therefore, claim 17 is rejected for the same reasons as in claim 11.

Regarding **claim 23**, Frost discloses a set-top terminal (STT) comprising: an encoder configured to compress a video stream in a first compressed format (Paragraph [0004]; data is compressed or encoded and then the compressed data is stored in memory);

and an encoder configured to re-compress the decompressed video stream in a second compressed format (Paragraphs [0008] and [0010]; the previously compressed content is re-compressed into a lower bit rate in order to free up more storage space),

the encoders configured to compress and re-compress and the decoder residing in the STT (Paragraph [0006] and [0007]).

However, it is noted that Frost fails to explicitly disclose a decoder configured to decompress the video stream encoded in the first compressed format.

Nevertheless, in a similar field of endeavor Boston discloses a decoder

configured to decompress the video stream encoded in the first compressed format

(Paragraphs [0066] [0067] and [0281] - [0284] also exhibited on fig 37; codec 176).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Frost by specifically providing the elements

mentioned above, as taught by Boston, for the purpose of including components that

are necessary in order to compress video files from one compression level to another.

Regarding **claim 24,** Frost and Boston disclose the STT of claim 23; moreover,

Frost discloses that the second compressed format enables a higher compression rate

than the first compressed format (Paragraphs [0008] [0010]).

Regarding **claim 26**, Frost discloses a set-top terminal (STT) comprising: an

encoder configured to compress a video stream such that the video stream has a first

bit-rate (Paragraph [0004]; data is compressed or encoded and then the compressed

data is stored in memory);

and an encoder configured to re-compress the decoded video stream such that

the re-compressed video stream has a second bit-rate that is lower than the first bit-rate

(Paragraphs [0008] and [0010]; the previously compressed content is re-compressed

into a lower bit rate in order to free up more storage space),

the encoders configured to compress and re-compress and the decoder residing

in the STT (Paragraph [0006] and [0007]).

However, it is noted that Frost fails to explicitly disclose a decoder configured to

decompress the video stream having the first bit-rate.

Nevertheless, in a similar field of endeavor Boston discloses a decoder

configured to decompress the video stream having the first bit-rate (Paragraphs [0066]

[0067] and [0281] - [0284] also exhibited on fig 37; codec 176).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Frost by specifically providing the elements

mentioned above, as taught by Boston, for the purpose of including components that

are necessary in order to compress video files from one compression level to another.


Regarding **claims 28 and 29,** Frost and Boston disclose all the limitations of

claims 28 and 29; therefore, claims 28 and 29 are rejected for the same reasons as in

claims 8 and 9, respectively.


Regarding **claim 31**, Frost discloses the STT of claim 30; however, it is noted

that Frost fails to explicitly disclose that the encoder configured to recompress the

compressed video stream is configured to decode the compressed video stream.

Nevertheless, in a similar field of endeavor Boston discloses that the encoder

configured to recompress the compressed video stream is configured to decode the

compressed video stream (Paragraphs [0066] [0067] and [0281] - [0284] also exhibited on fig 37; codec 176).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Frost by specifically providing the elements mentioned above, as taught by Boston, for the purpose of including components that are necessary in order to compress video files from one compression level to another.

Regarding **claims 34 and 36,** Frost and Boston disclose all the limitations of claims 34 and 36; therefore, claims 34 and 36 are rejected for the same reasons as in claims 15 and 31, respectively.

Regarding **claim 39**, Frost discloses a method comprising the steps of: storing a video presentation having a first compression format (Paragraph [0004]; data is compressed or encoded and then the compressed data is stored in memory);

However, it is noted that Frost fails to explicitly disclose transcoding a first portion of the video presentation such that the first portion has a second compression format while a second portion remains in the first compression format; decoding the first portion having the second compression format; providing the first portion to a user; decoding the second portion having the first compression format; and providing the second portion to the user.

Nevertheless, in a similar field of endeavor Boston discloses transcoding a first

portion of the video presentation such that the first portion has a second compression

format while a second portion remains in the first compression format

(Paragraphs[0288] – [0291] figs 38 and 39);

decoding the first portion having the second compression format; providing the

first portion to a user (Paragraphs [0066] [0067] [0291] figs 38 and 39; use the

corresponding decoder during display);

decoding the second portion having the first compression format; and providing

the second portion to the user (Paragraphs [0066] [0067] [0291] figs 38 and 39; use the

corresponding decoder during display).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Frost by specifically providing the elements

mentioned above, as taught by Boston, for the purpose of including components that

are necessary in order to compress video files from one compression level to another;

optimizing the available storage.

7.      **Claims 25, 27 and 40** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Frost in view of Boston further in view of Mori et al. (Patent No US

6,931,064). Hereinafter, referenced as Mori.


Regarding **claim 25**, Frost and Boston disclose the STT of claim 23; moreover,

Frost discloses re-compressing the first compressed format into the second

compressed format (Paragraphs [0008] and [0010]; the previously compressed content

is re-compressed into a lower bit rate in order to free up more storage space).

However, it is noted that Frost fails to explicitly disclose that the re-compression

can be done between a MPEG-2 format an H.264 format. Nevertheless, in a similar field

of endeavor Boston discloses that the re-compression can be done between a MPEG-2

format an H.264 format (Paragraph [0282]-[0284] also exhibited on fig 37)

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Frost by specifically providing the elements

mentioned above, as taught by Boston, for the purpose of including components that

are necessary in order to compress video files from one compression level to another,

in order to optimize the space available in a storage.

However, it is noted that the combination of Frost and Boston still fails to

explicitly disclose that the first compressed format is an MPEG-2 format and the second

compressed format is an H.264 format. Nevertheless, in a similar field of endeavor Mori

discloses that the first compressed format is an MPEG-2 format and the second

compressed format is an H.264 format (Col. 2 lines 40-63; col. 3 lines 14-18 fig 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Frost and Boston by specifically providing the

elements mentioned above, as taught by Mori, for the purpose of converting a MPEG2

format into a MPEG4 format, which allows more compression and in consequence more

bandwidth saving and better network management.

Regarding **claim 27,** Frost and Boston disclose all the limitations of claim 27;

therefore, claim 27 is rejected for the same reasons as in claim 25.

Regarding **claim 40,** Frost discloses a method implemented by a television set-

top terminal (Paragraph [0006]), comprising the steps of:

encoding a video stream in a first compressed format (Paragraph [0004]);

storing the video stream encoded in the first compressed format in a storage

device (Paragraph [0004]);

retrieving the video stream encoded in the first compressed format from the

storage device (Paragraph [0008]);

encoding the decoded video stream in a second compressed format (Paragraphs

[0008] [0010]);

and storing the video stream encoded in the second compressed format in the

storage device (Paragraphs [0008] [0010] [0017]);

and wherein the second compressed format enables a higher compression rate

than the first compressed format (Paragraphs [0008] [0010]).

However, it is noted that Frost fails to explicitly disclose decoding the video

stream encoded in the first compressed format t.

Nevertheless, in a similar field of endeavor Boston discloses decoding the video

stream encoded in the first compressed format (Paragraph [0282]-[0284] also exhibited

on fig 37).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Frost by specifically providing the elements

mentioned above, as taught by Boston, for the purpose of including components that

are necessary in order to compress video files from one compression level to another,

in order to optimize the space available in a storage.

However, it is noted that the combination of Frost and Boston still fails to

explicitly disclose that the first compressed format is an MPEG-2 format and the second

compressed format is an H.264 format. Nevertheless, in a similar field of endeavor Mori

discloses that the first compressed format is an MPEG-2 format and the second

compressed format is an H.264 format (Col. 2 lines 40-63; col. 3 lines 14-18 fig 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Frost and Boston by specifically providing the

elements mentioned above, as taught by Mori, for the purpose of converting a MPEG2

format into a MPEG4 format, which allows more compression and in consequence more

bandwidth saving and better network management.

## *Conclusion*

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to JUNIOR O. MENDOZA whose telephone number is

(571)270-3573.  The examiner can normally be reached on Monday - Friday 9am - 5pm

EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Andrew Koenig can be reached on (571)272-7296.  The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Junior O Mendoza
Examiner
Art Unit 2623

/J. O. M./
June 13, 2008

/Andrew Y Koenig/
Supervisory Patent Examiner, Art Unit 2623